Statistics for laboratory scientists

Homework problems for lecture 17

1. I plan to measure something on 10 mice from one strain and 15 mice from a second strain. I am willing to assume that the measurements in the two strains are normally distributed with a common population SD.

   a. What will be my power to detect a difference between the two strains (by a t-test) if the true difference between the strain means is 10 units, and the population SDs for the strains are 15 units? (Use R.)

   b. How about if the true difference between the strain means is 20 (and the populations SDs are again 15)?

[ 3rd term syllabus | 4rd term syllabus | R for Windows ]